

DETAILED ACTION

Status of Claims

1. The latest claims were filed October 8th, 2008 and have claims 1-5, 14, 21, 23, 24, 26, 28, 30, 32, and 35 cancelled with claims 6-20, 22, 25, 27, 29, 31, 33-34, and 36 pending.

Telephone Interview

2. The instant Office Action is filed in response to a telephone interview with Ms. Lauren Schneider and Mr. David Klinger on April 21st, 2009 at 1:00 pm where an agreement was reached as to the Examiner's amendment below to render the pending claims allowable. Please see the interview summary sheet attached to this Office Action.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Lauren Schneider on April 21st, 2009.

Start of Examiner's Amendment

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1. (Canceled).
2. (Canceled).

3. (Canceled).
4. (Canceled).
5. (Canceled).
6. (Previously Presented) The glass forming alloy described in claim 36 wherein the alloy has a ΔT_{sc} of more than 40 °C.
7. (Previously Presented) The glass forming alloy described in claim 36 wherein the alloy has a Vickers hardness greater than 700 Kg/mm².
8. (Previously Presented) The glass forming alloy described in claim 36 wherein the alloy has a yield strength of greater than 2.5 GPa.
9. (Previously Presented) The glass forming alloy described in claim 36 wherein the alloy has a Young's modulus of greater than 140 GPa.
10. (Previously Presented) The glass forming alloy described in claim 36 wherein the alloy has a ratio of glass transition temperature to liquidus temperature of around 0.6 or more.
11. (Previously Presented) The glass forming alloy described in claim 36 wherein the alloy is substantially amorphous.
12. (Previously Presented) The glass forming alloy described in claim 36 wherein the alloy contains a ductile crystalline phase precipitate.
13. (Previously Presented) The glass forming alloy described in claim 36 wherein the critical cooling rate is less than about 1,000 °C/sec.
14. (Canceled).
15. (Canceled).

16. (Canceled).
17. (Canceled).
18. (Canceled).
19. (Canceled).
20. (Canceled).
21. (Canceled).
22. (Currently Amended) A glass forming alloy consisting ~~essentially~~ of an alloy having a composition given by:
$$\text{Ni}_{100-a-b-c-d} \text{Ti}_a \text{Zr}_b \text{Al}_c \text{Cu}_d$$
, where $15 < a < 18$, $27 < b < 30$, $9 < c < 11$, $3 < d < 7$, and $a+b+c+d$ is in the range of from 58 to 61.
23. (Canceled).
24. (Canceled).
25. (Original) The glass forming alloy described in claim 22 wherein the critical cooling rate is less than about 1,000 °C/sec.
26. (Canceled).
27. (Previously Presented) A three dimensional article made from the alloy of claim 36 having an amorphous phase.
28. (Canceled).
29. (Currently Amended) A three dimensional article made from the alloy of claim [[15]] 36 having an amorphous phase.
30. (Canceled).

31. (Original) a three dimensional article made from the alloy of claim 22 having an amorphous phase.

32. (Canceled).

33. (Currently Amended) The glass forming alloy of claim [[15]] 36 having a composition of $\text{Ni}_{40}\text{Ti}_{16}\text{Zr}_{28}\text{Al}_{10}\text{Cu}_6$.

34. (Currently Amended) The glass forming alloy of claim [[15]] 36 having a composition of $\text{Ni}_{40}\text{Ti}_{17}\text{Zr}_{28}\text{Al}_{10}\text{Cu}_5$.

35. (Canceled).

36. (Currently Amended) A glass forming alloy consisting ~~essentially~~ of an alloy having a composition given by:

$\text{Ni}_{100-a-b-c-d}\text{Ti}_a\text{Zr}_b\text{Al}_c\text{Cu}_d$, where $15 < a < 18$, $27 < b < 30$, $9 < c < 11$, $3 < d < 7$.

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End of Examiner's Amendment

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

The closest prior art of Zhao (CN 1354274) does not overlap the amended composition ranges of claims 22 or 36 as the total Ni+Cu content of Zhao must be at least 50 at% while the instant claims do not allow for a total Ni+Cu content in Zhao's range.

The cited art of Li (TW 458828) does not read on the amended claims 22 and 36 as Li requires the presence of 1-3 at% of Sn, which is excluded from the instant claims by the closed language of "consisting of" to only include Ni, Ti, Zr, Al, and Cu.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shevin whose telephone number is (571) 270-3588 and fax number is (571) 270-4588. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy M. King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Mark L. Shevin/
Examiner, Art Unit 1793

April 21st, 2009
10-535,317

/George Wyszomierski/
Primary Examiner
Art Unit 1793